

FSA Modernization Partner

United States Department of Education

Federal Student Aid



EAI Quarterly Services Report
FY02 Q3

Task Order #80

Deliverable # 80.1.5c

Version 1.0

June 28, 2002



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1 Introduction

1.1 Summary

This report documents the progress made for EAI Release 3.0 (Task Order 80) in the period between April 1, 2002-June 28, 2002. In addition, it includes an overview of the current EAI Core Architecture, a Software Installation Report, materials presented at EAI Monthly Integration Meetings held during this period, and an organization chart and contact list for the EAI team.

Task Order 80 implements additional technical services, maintains the existing architecture, and provides assistance to business application teams in using EAI Core Architecture services. The long-term vision of FSA's EAI is to enable business applications to integrate/communicate with back-end systems via common, reusable services provided by EAI.

This report covers the following activities of the EAI team:

- EAI Architecture Overview- Provides an up-to-date view of the EAI Architecture as it evolves over the duration of the task order.
- EAI Core Services – Provides new infrastructure products, upgrades to existing products, and development of reusable practices for naming and programming standards.
- Development Integration Services - Provides guidance and support to application teams utilizing the capabilities provided by the EAI Core Architecture.
- Build and Test of Adapters and Components –Provides new adapters for additional FSA systems that have enterprise applications and data, and a component library containing reusable EAI components and functions.
- Software Installation Reports- Documents status of newly acquired software.
- Communication – Facilitates the communication of the EAI strategy to all FSA Operating Partners and stakeholders through EAI Workshops and Monthly Integration Meetings.



2 EAI Architecture Overview

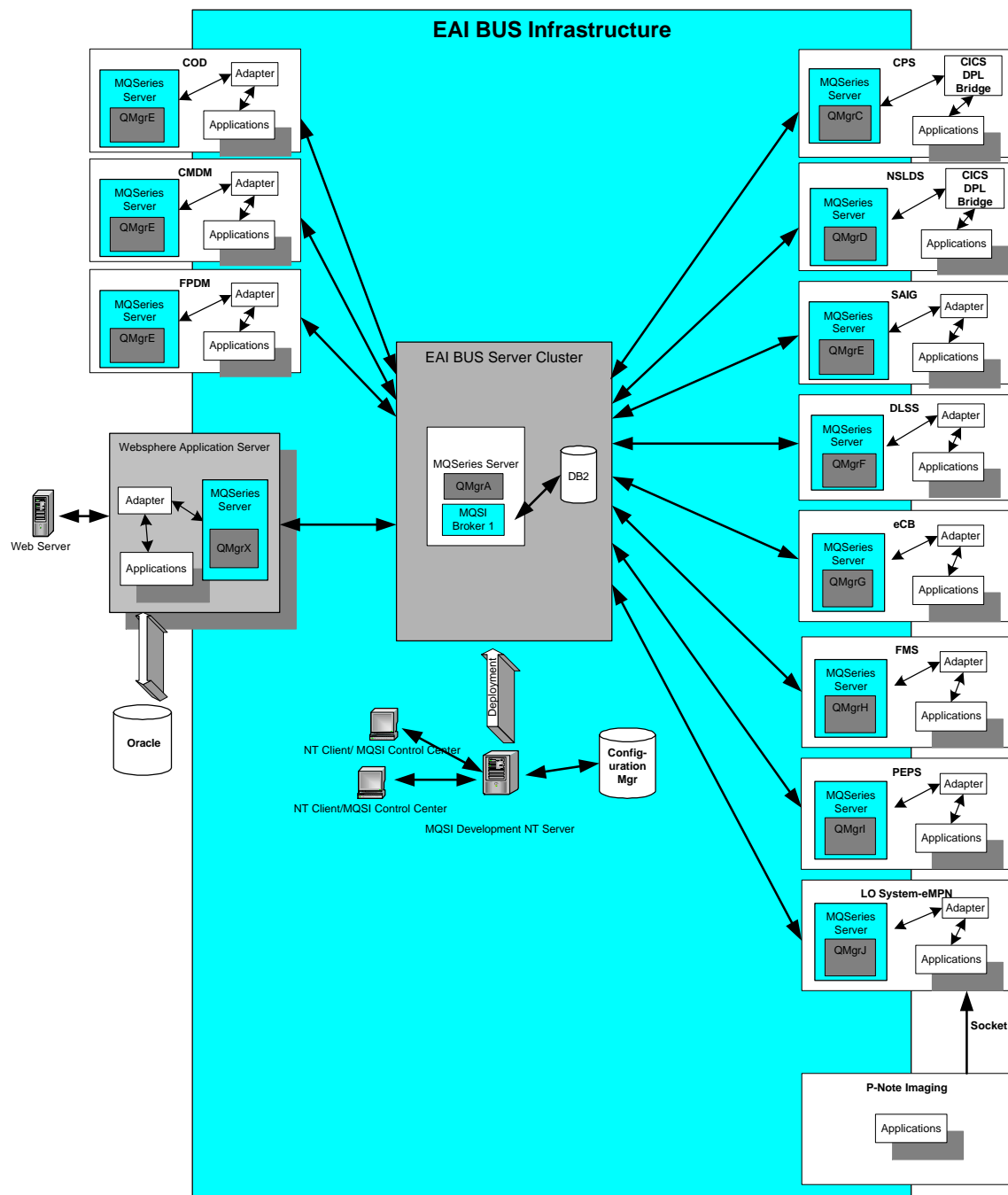
This section provides an overview of the EAI Architecture, including Release 1 and 2 legacy systems, interfaces to the legacy systems, and interfaces to FSA's Integrated Technical Architecture (ITA).

The FSA Enterprise Application Integration Core Architecture consists of the following four primary areas:

- Legacy Systems – Mainframe and Mid-Tier
- Internet – Websphere Application Server
- EAI Bus Servers
- EAI Development Workstations

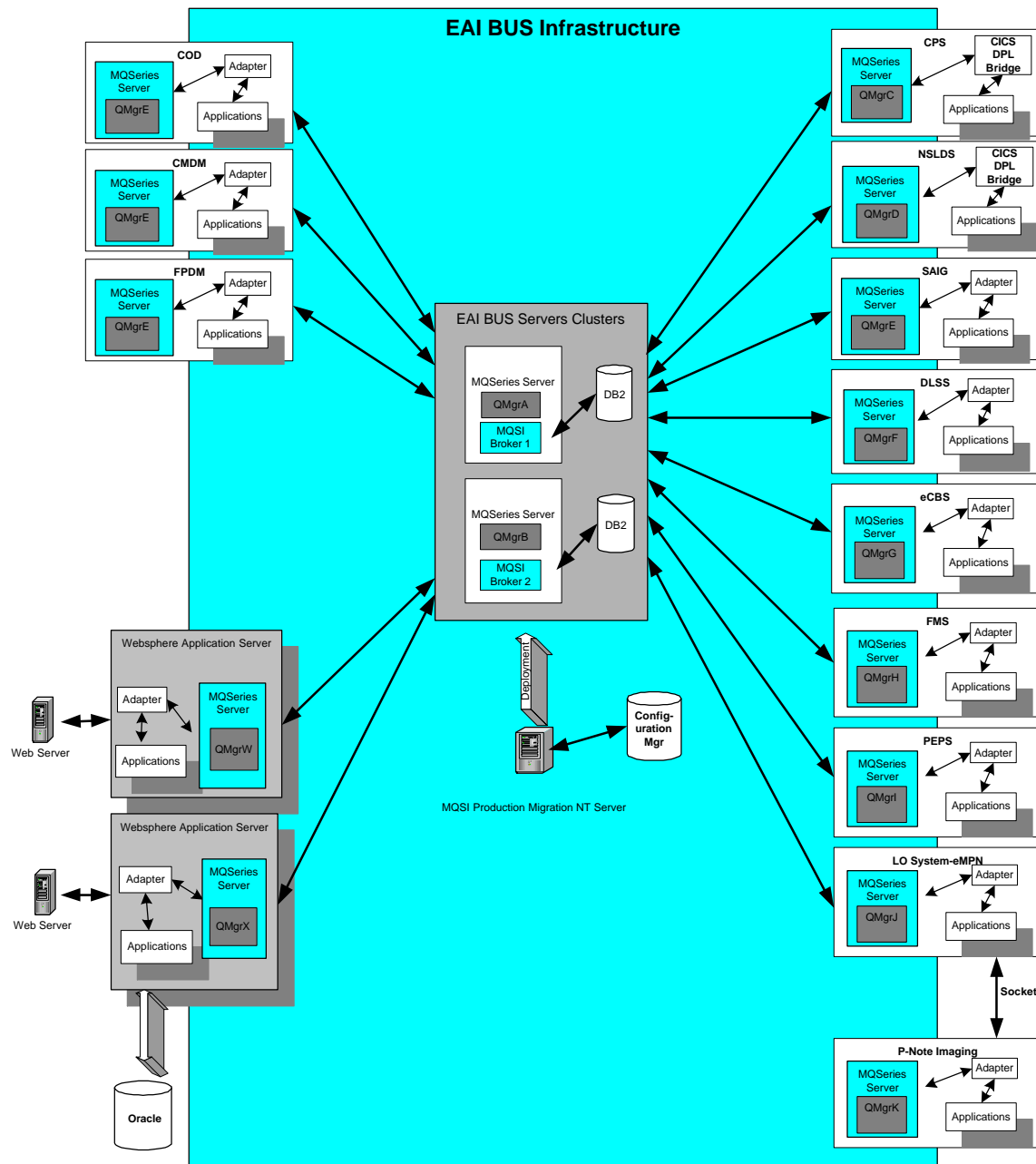


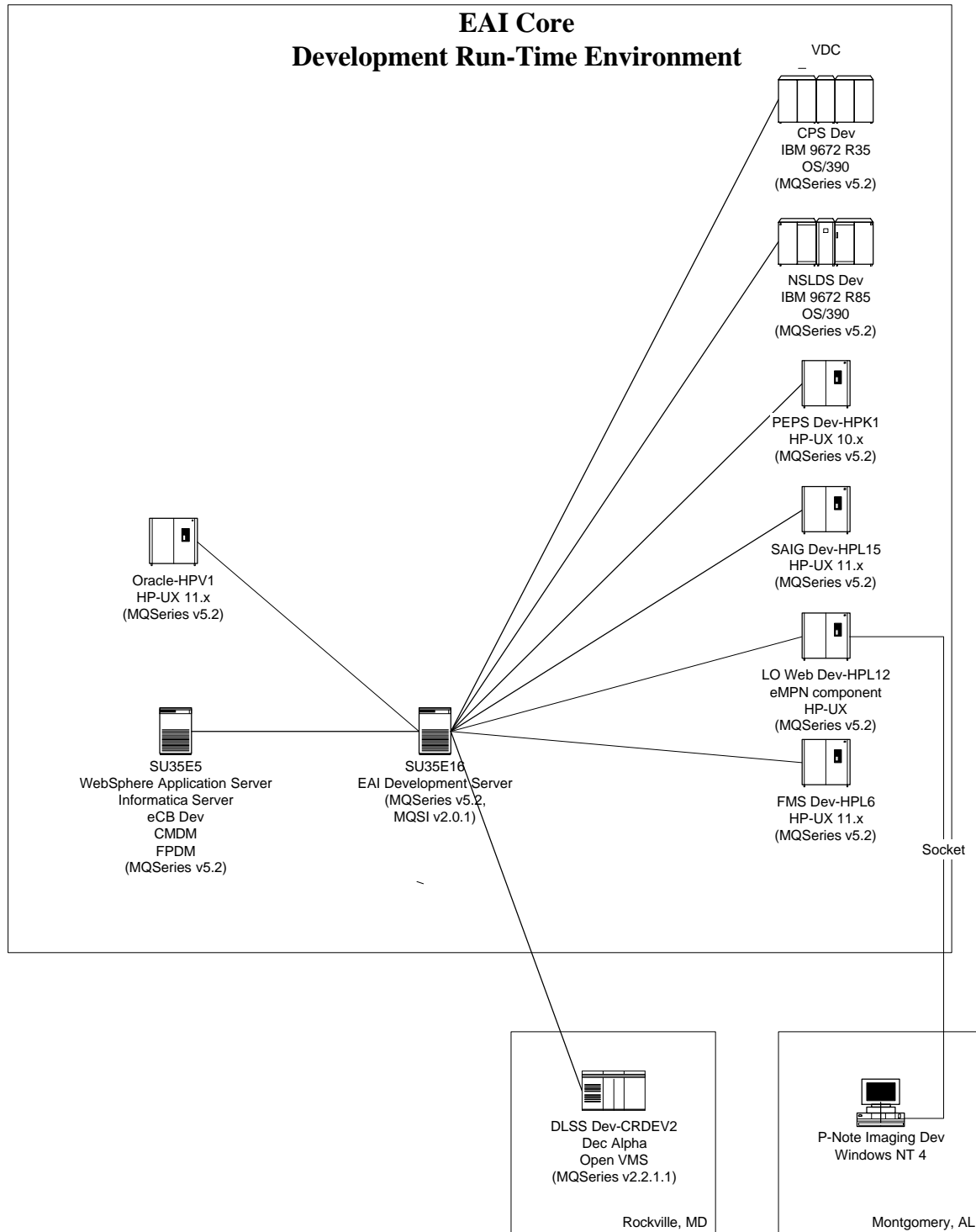
EAI BUS Architecture Overview (Development)



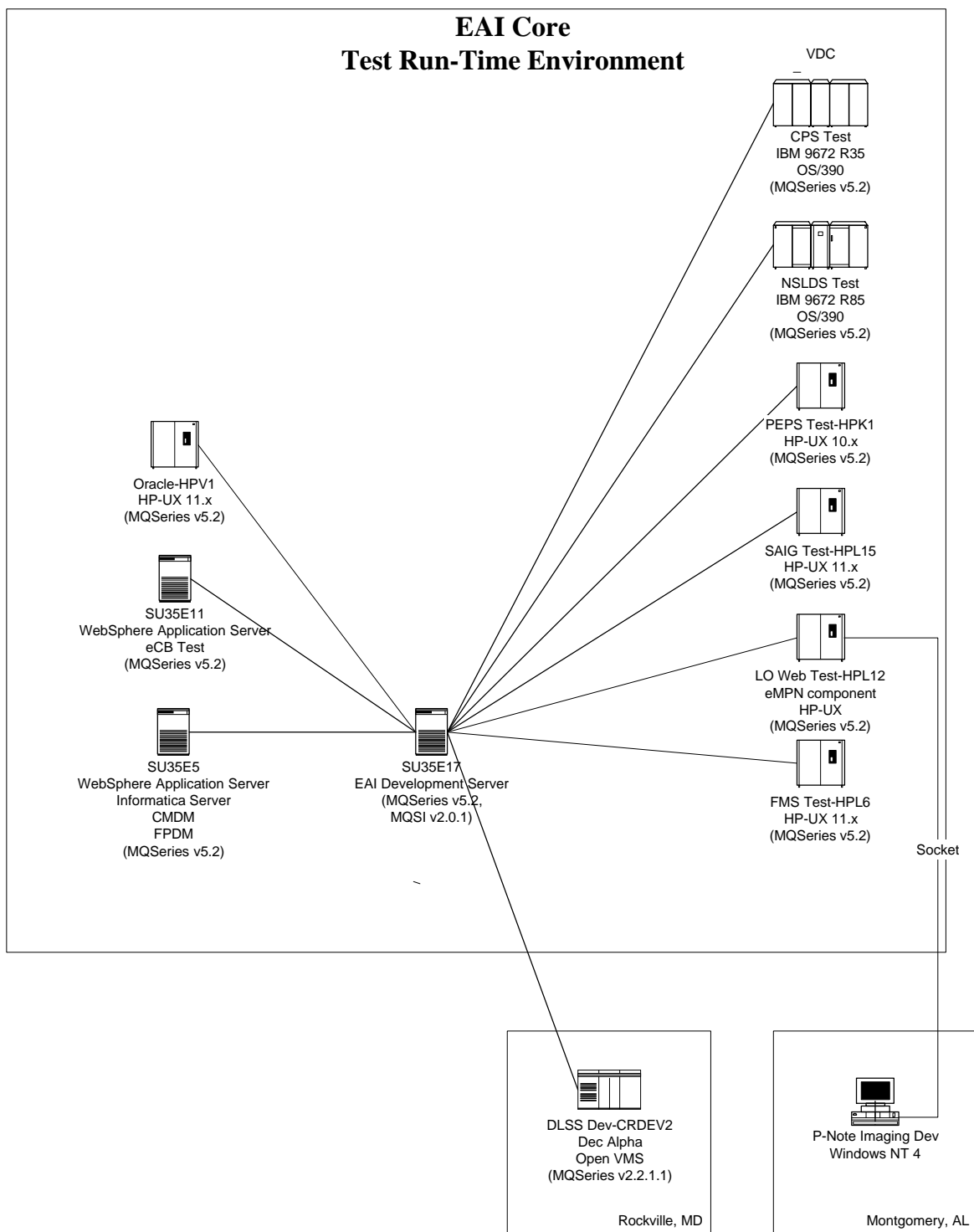


EAI BUS Architecture Overview (Production)

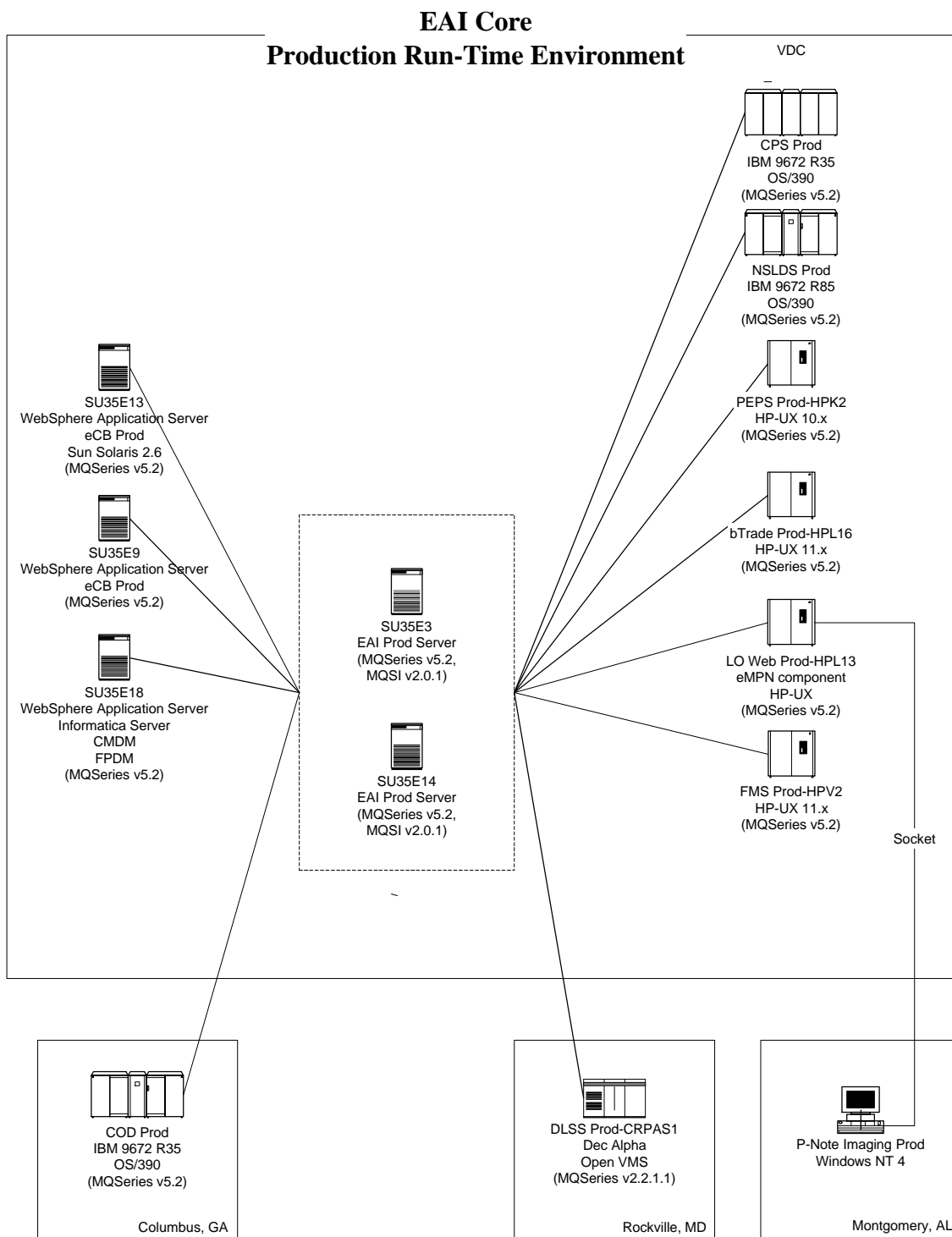




Last Updated 6/25/2002



Last Updated 6/25/2002



Last Updated 6/25/2002



3 Support Areas

During the first quarter of FY02, the EAI team provided technical support to FSA in the following areas:

- EAI Core Services
- Development Integration Services
- Build and Test of Adapters and Components
- Software Installation Report
- Communication

The following sections describe the specific tasks the EAI team performed in these support areas.

3.1 EAI Core Services

EAI Core Services includes the acquisition and installation of new infrastructure products, upgrades to existing products, and development of reusable practices for naming and programming standards.

3.1.1 Infrastructure

Products, which would enhance the already existing infrastructure, are being evaluated. Evaluation of Transaction Vision, a message tracing and MQ monitoring tool, is in progress. This tool can extend our monitoring capability to include MQSI as well as MQSeries, will expedite the resolution of any problems we experience with MQ and will help us in performance tuning transactional interfaces.

3.1.2 Upgrades

Upgrades of the EAI infrastructure are being performed to continue vendor support and to obtain enhancements provided by new releases.

Corrective Service Deliverables (CSD's), or patches to MQSeries and MQSI, have been applied in the Development and Test environments. The CSD's were migrated into Production after testing.

CommerceQuest Data Integrator was upgraded to version 4.2.4 on all Sun Solaris machines to correct a problem with the Data Integrator Client.

3.1.3 Reusable Practices

Reusable practices are being updated to provide application teams with a guide for using the services provided by the EAI Core Architecture.



3.2 Development Integration Services

This task provides guidance and support to application teams utilizing the capabilities provided by the EAI Core Architecture.

3.2.1 Program Architecture

Program architecture services recommend the EAI strategy for Modernization. The EAI strategy has been communicated through the EAI Monthly Integration Meetings (described in detail below). Previously, EAI developed a generic integration work-plan that outlined the steps necessary for EAI integration. During Q3, EAI developed a template for the Interface Partner Agreement, outlining the required EAI effort and resource list.

3.2.2 Business Integration Support

Business integration support assists application teams in application interface design.

The EAI team worked with NSLDS II, DMCS Replacement, Consistent Answers, and eZ-Audit in gathering their application interface requirements and designing their interfaces.

3.2.3 Technical Integration Support

Technical integration support assists application teams in application interface design using reusable EAI components and services.

The EAI team developed interfaces for e-Campus Based and FP Data Mart Applications. This included the installation and configuration of MQSeries and Data Integrator and the development and unit test of the batch and transactional interfaces.

For Common Origination and Disbursement and e-Campus Based, the EAI team helped conduct system tests of the interfaces, deployed them to production, and provided full time production support to the application teams.

The EAI team deployed e-Campus Based and Financial Partners Data Mart (FP Data Mart) interfaces to Production.

3.3 Build and Test of Adapters and Components

This task provides development of application interfaces to the EAI Bus.



3.3.1 New Adapters

New adapters will be built for additional FSA systems that have enterprise applications and data. The selection of which adapters to build will be driven by the needs of the enterprise and the overall Modernization program.

3.3.2 Components

A centralized component library containing reusable EAI components and functions is being built for application teams. The design of the components is built to support reuse across business channels.

3.4 Software Installation Report

This report documents the status of newly acquired software including Data Integrator, MQSeries, MQSI. Please see the Software Installation Report included in Appendix A of this report.

3.5 Communication

3.5.1 Workshops

To facilitate communication of EAI accomplishments, capabilities and services, the EAI Core team will conduct workshops focusing on both business and technical aspects of EAI. On May 14, 2002 the EAI team conducted an "EAI Implementation Workshop". This workshop was geared towards application team developers whose applications were coming onto the bus. The workshop was well attended by both application team developers and others interested in learning about the technical side of EAI. Previous presentations focused on the business aspects of EAI and laid the foundation for this workshop's detailed discussion of EAI products and their implementation at FSA.

3.5.2 EAI Monthly Integration Meetings

These meetings are held on the first Thursday of each month to give application teams the opportunity to discuss issues and raise questions about EAI integration. In addition, the EAI Core team reports its status and other relevant information.

On April 4, 2002 the EAI Core team successfully conducted its EAI Monthly Integration Meeting. Topics covered included an overview of EAI Core Support Services, the current status of EAI interfaces to various applications, and a plan for deploying the COD interface. This presentation is included in Appendix B of this report.



The May 2, 2002 EAI Monthly Integration Meeting presentation is included in Appendix C of this report. This presentation featured a section describing EAI Security and Performance Test Results.

The June 6, 2002 Monthly Integration Meeting presentation is included in Appendix D of this presentation. Attendees had the opportunity to learn about EAI current status and to raise questions, or concerns about their interfaces to the EAI Bus.